

## DOCUMENT RESUME

ED 476 273

CS 510 835

AUTHOR Chesebro, James W.; Worley, David  
TITLE The Effect of Electronic/Computer Mediation on Communication and General Education.  
INSTITUTION National Communication Association, Annandale, VA.  
PUB DATE 2001-06-00  
NOTE 29p.; Paper presented at the Summer Conference of the National Communication Association (Washington, DC, June 2001). See CS 511 831-842 for other papers given at the summer conference.  
AVAILABLE FROM For full text: <http://www.natcom.org/Instruction/summerconf/summerconf.htm>.  
PUB TYPE Information Analyses (070) -- Reports - Research (143) -- Speeches/Meeting Papers (150)  
EDRS PRICE EDRS Price MF01/PC02 Plus Postage.  
DESCRIPTORS College Instruction; \*Educational Policy; General Education; Higher Education; \*Introductory Courses; \*Speech Communication; \*World Wide Web  
IDENTIFIERS Research Suggestions; Technological Change

## ABSTRACT

While the "basic course in communication" can vary from one institution to another, often in significant ways, there are also forces within the discipline of communication that have established basic parameters and standards for constructing, maintaining, altering, and evaluating what many within the discipline readily identify as "the basic course." The identity of the basic course does, however, undergo changes and transformations, some of which are exerted by forces external to the educational system. This paper suggests that a series of forces external to the discipline of communication and the educational system are exerting overwhelmingly powerful influences upon the basic course. The paper focuses particularly on the possibilities created by the World Wide Web and how Web page options of the basic course are likely to affect the basic course itself, the relationships among the faculty involved in the basic course from school to school, and how the discipline of communication itself--especially through the various professional organizations--should, not must, respond to the technological transformations provided by the World Wide Web. First, the paper examines and extracts the basic features of a policy research analysis as a method for analyzing a problematic situation. Second, it applies this method to the forces currently transforming the basic course. Finally, it isolates and identifies several policy areas and propositions that suggest ways of dealing with the web page option of the basic course in ways that foster cooperation, the shared use of resources, and pool pedagogical insights when responding to the technological changes embedded in the Web page option of the basic course. (Contains 1 table and 42 references.) (NKA)

<b>N</b>	<b>C</b>	<b>A</b>
<b>National Communication Association</b> founded 1914		

1765 N.  
Street N.W.

Washington,  
D.C. 20036  
202-464-  
4622  
202-464-  
4600 (fax)

# F. The Effect of Electronic/Computer Mediation on Communication and General Education

**James W. Chesebro and David Worley**

Summary of Factors Affecting the Relationship Between general Education Program and the Basic Course in Communication:

1. Image of the Discipline in General and at Specific Institution
2. Parents/Guardians
3. State Legislature and/or Benefactors
4. Educational Associations
5. Research
6. Best Practices at Other Institutions
7. Background/Capabilities of Students
8. Technological Potential

PERMISSION TO REPRODUCE AND  
DISSEMINATE THIS MATERIAL HAS  
BEEN GRANTED BY

S. Morreale

TO THE EDUCATIONAL RESOURCES  
INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION  
CENTER (ERIC)

- ☐ This document has been reproduced as received from the person or organization originating it.
- ☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

**BEST COPY AVAILABLE**

## Primary Interactions Examined



General Education Program

Basic Course in Communication

Technological Mediation

-

-

### Today's Focus

*"Delivering the Basic Course"*

or

General Education Program and Technological Mediation

## 1. INSTITUTIONAL REQUIREMENTS

- A. Image of the Institution
- B. State Legislative Mandate
- C. Best Practices as "Sister Institutions"
- D. Cost-Effectiveness

## 2. STUDENT REQUIREMENTS

- A. Technological Proficiency
- B. Technologies Available to Students
- C. Scheduling Issues

D. Independence and Discipline

E. Registration/Enrollment Policy Regulations

### 3. INSTRUCTIONAL REQUIREMENTS

A. Immediacy

B. Teaching Staff

C. Content

# **The Mediation of the Basic Course:**

## **A Policy Research Analysis**

**David W. Worley and James W. Chesebro**

Indiana State University

While the “basic course in communication” can vary from one institution to another, often in significant ways, there are also forces within the discipline of communication that have established basic parameters and standards for constructing, maintaining, altering, and evaluating what many within the discipline readily identify as “the basic course.” While the concept and expression “*basic course*” has itself generated questions and issues (see, e.g., Hugenberg, 1991, pp. iv-v), nonetheless the consistent publication of the *Basic Communication Course Annual* since 1989 suggests that some consensus exist regarding the coherence and unity of thought regarding this course. Indeed, when Hugenberg (1991, pp. iv-v) made the “conscious effort to change the orientation to ‘introductory course in communication’ instead of ‘the basic course’” in the third volume of the *Basic Communication Course Annual*, in the same issue of that *Annual*, Trank and Lewis (1991, pp. 106-122) provide an impressive list of the commonly shared characteristics that cut across the basic course from institution to institution in the United States.

The identity of the basic course does, however, undergo changes and transformations. Some of the changes emerge from agents within the educational system. Some of these changes are exerted by forces external to the educational system.

Within the educational system, many of these changes stem from faculty, students, and administrators. Faculty within educational institutions can certainly exert a direct and pervasive influence upon the basic course. For example, faculty can react to transformations fostered and promoted by the discipline of communication. New research, theoretical, applied, and pedagogical transformations can motivate understandings within the discipline of communication and therefore influence directly the changes the basic course undergoes. Additionally, student characteristics, demographics, needs, motives and career objectives evolve and affect how the basic course is conceived, organized, and taught. Finally, of course, educational administrators can strongly influence the nature and character of the basic course. The decision to include or exclude the basic course from a

general education curriculum is one of the most critical and significant conceptions influencing the nature as well as the importance of the basic course.

We may wish to believe that the most significant changes in the basic course come from within educational institutions from those teaching, taking, and administering the basic course. However, as Chesebro and Worley (2000, p. 28) have already argued, a host of factors external to the educational system can strongly and directly influence how the discipline of communication, its various courses, and the image of communication itself are defined and understood.

In this essay, we want to suggest that a series of forces external to the discipline of communication and the educational system are exerting overwhelmingly powerful influences upon the basic course. We particularly focus here on the possibilities created by the World Wide Web and how web page options of the basic course are likely to affect the basic course itself, the relationships among the faculty involved in the basic course from school to school, and how the discipline of communication itself—especially through its various professional organizations—should, not must, respond to the technological transformations provided by the World Wide Web. In our view, these transformations are radical, equal—in scope and significance—to the decision of communication scholars to separate from the discipline of English (see, e.g., Cohen, 1994, pp. 29-84). In this regard, we believe that it is more than likely that the web page options of the basic communication course possess tremendous potentials. Indeed, some have suggested that the American educational system can only meet the “challenge of globalization” through the “development of communication technology” and the “global use of Internet exchanges [that] provide us a great opportunity to help our students better equip themselves with knowledge and skills for survival in the 21<sup>st</sup> century” (Chen, 2000, p. 145; also see: Biagi, 2001, pp. 1-33, 203-225, & 365-389; Chesebro, 2000; Dizard, 2000; Gattiker, 2001; Moores, 2000; & Sconce, 2000). At the same time, we fear, these same technologies possess the ability to pit departments of communication against each other as no other force has.

At the same time, because we are equally convinced that while “disruptive technologies” potentially can “plunge” the discipline of communication into “crisis and, ultimately, failure,” we also believe that these same technologies can be the source of a “creative disruption” that enhances and allows the discipline of communication to emerge as more cohesive, more unified, and to share its pure and applied research findings more effectively as a result of confronting and responding constructively to these “disruptive technologies” (Christensen, Craig, & Hart, 2000, pp. 84 & 91-92).

Once these influences are recognized and understood as controllable, we believe the far more significant issue is to plan systematically for the policies that can and should regulate how those within the discipline of communication handle these external influences. Indeed,

the focus of this essay is *not* to assess the relative value of how the World Wide Web is transforming the basic course. We examine these transformations predominantly to establish a shared perspective of the power and pervasiveness of the World Wide Web. Once this foundation is established, we intentionally focus on the process of identifying policy areas and propositions that might provide a foundation for responding to these technological changes. Our motives for this focus, we hope, emerge as we proceed through the three major stages of this essay. First, we examine and extract the basic features of a policy research analysis as a method for analyzing a problematic situation. Second, we apply this method to the forces currently transforming the basic course. Third and finally, we isolate and identify several policy areas and propositions that suggest ways of dealing with the web page option of the basic course in ways that foster cooperation, the shared use of resources, and pool pedagogical insights when responding to the technological changes embedded in the web page option of the basic course.

## Policy Research Analysis

Policy research analyses are not commonly employed in academic analyses of communication problems. However, for those dealing with advanced technologies and their impact on human systems, policy research analyses are common. For example, the Telecommunications Policy Research Conference (TPRC) has predominantly employed only policy research analyses for the entire twenty-five years of its existence (Owen, 1998). Indeed, for over thirty years, virtually all technology-sensitive industries have found policy research analyses central to their mode of operation (see, e.g., Martino, 1972). Within this context, policy research analysis is a synthesis of a host of diverse expertises. In the specific case of the TPRC, the conference initially constituted a “forum for communication policy researchers to exchange ideas” (Owen, 1998, p. 1). But, more properly understood, policy research analysis itself is the “channel” by which diverse “policy-relevant research” is synthesized and integrated, as Carl V. Patton (2001) has put it, to “identify and evaluate” policies and programs that are “intended to lessen or resolve social, economic, or physical problems.” Within an educational context, the Association for Managing and Using Information Resources in Higher Education (2001, February 9) has proposed that policy research analysis can be understood as an “enabling system” that promotes “transformational changes occurring in higher education” through the integration and effective “management and use of information resources—technology, services, and information.”

In these senses, policy research analysis directly and immediately reflects two of Boyer’s four forms of scholarship. First, policy research analysis constitutes a form of the “scholarship of application” that asks, “How can knowledge be responsibly applied to consequential problems?” and might ultimately be extended to ask, “Can social problems themselves define an agenda for scholarly investigation?” (Boyer, 1990, p. 21). Second, policy research analysis constitutes a form of the “scholarship of integration,” for it



makes "connections across the disciplines, placing the specialties in larger context, illuminating data in a revealing way, often educating nonspecialists, too" (Boyer, 1990, p. 18).

Based predominantly upon the experiences of the TPRC, although related experiences are also appropriately related to the TPRC's experiences, the criteria for a policy research analysis can be extracted and identified. Specifically, a view of TPRC existing analyses (e.g., MacKie-Mason & Waterman, 1998) as well as an historical description of TPRC (Owen, 1998) activities suggest that five criteria should exist before a policy research analysis is appropriate (external verification for these steps is provided in: "Policy Analysis in Six Easy Steps").

First, a situation is predominantly to be resolved through technological implementation. While prior social and cultural analyses can goad or encourage the development of a technology (Berg, 1998), the development and application of technology occurs because of popular demand, the usefulness of the products or services rendered by the technology, or because of financial, temporal, or personnel economies that are achieved when technological extensions are provided.

Second, the technological implementation is anticipated to be expensive, and prior policy research analyses are accordingly employed in an attempt to minimize unproductive, costly, and unnecessary experimentation, insofar as that can be done.

Third, while not originally intended for this purpose, a host of prior research findings and analyses exist that can be used to understand and predict how a technological implementation is likely to occur (i.e., both the positive and negative outcomes can be anticipated). Such predictions presume that receivers react one way rather than another to specific outcomes. If these receivers are ultimately composed of multiple audiences rather than single group, then the same outcome may have different meanings and consequences depending upon the audience. Schemes for anticipating the multiple reactions to technologies have been posited (see, e.g., Virnoche, 1998).

Fourth, the results of the policy research analysis can be shared in concert with all of those players likely to be involved in the process. MacKie-Mason and Waterman (1998, p. xv) have reported that the first TPRC conference, held in 1972 under the auspices of the old Office of Telecommunications Policy, was a "lonely and inhospitable place" for the "academically-minded in telecommunications." Since that time, MacKie-Mason and Waterman (1998, p. xi) have observed that the TPRC conference is currently conceived as a "community of scholars, policy-makers, and practitioners," "joined by a shared interest in telecom policy, despite widely ranging academic fields and organizational interests." More broadly articulated, Grin and van de Graaf (1996) have reported that the meaning of a technological artifact tends to divide policymakers and managers from technologists. They have recommended that technological



assessment can play a central role in bringing about such congruent meanings and thus in influencing the generation of new technologies.

Fifth and finally, a policy research analysis presumes that sharing information and understandings can produce greater cooperation and allow players to minimize competitive endeavors where such competitive endeavors only increase costs without improving the product. The degree to which such sharing is possible has been an issue in technology scholarship (see, e.g., Zimmerman, 1995), but we bypass many of these concerns simply because we outline specific modes of sharing among those within a specific discipline and a common pedagogical set of objectives.

### **Criteria Application:**

#### **A Policy Research Analysis of the**

#### **Web Page Option for the Basic Course**

A policy research analysis of the basic course in communication suggests that virtually all of the components and processes are now in place to offer the basic course in communication as a web page option nationally. However, far more relevant to our objectives here is that fact that such an analysis also provides a foundation for suggesting that a host of related policy areas and propositions should also be examined collectively, under the guidance of our professional associations, to ensure that the web page courses offered foster cooperation, achieve the highest pedagogical standards, and foster equal educational treatment for all students whenever possible within the discipline of communication. We begin this analysis, then, by first recognizing that the hardware and software necessary to offer a web page option of the basic course in communication is available.

### **Technological Implementation Is Feasible and Imminent**

We can appropriately begin this analysis at the broadest level with the recognition that distance learning is a pervasive component of higher education today. The U.S. Department of Education (2001) informs us that one third of higher education institutions offered distance education courses in the Fall of 1995, and that this number rose to over fifty percent by the Fall of 1998. Public institutions offered distance education courses much more frequently than did private institutions, with 58 percent of public 2-year and 62 percent of public 4-year institutions offering distance education courses in the Fall of 1995, compared with 2 percent of private 2-year and 12 percent of private 4-year institutions. In the 1994-1995 academic year, higher education institutions offered an estimated 25,730 distance education courses with different catalog numbers. In terms of specific disciplines, about three-quarters of the institutions that offered distance education

courses in the Fall of 1995 used courses developed by the institution's subject area departments of schools, and 30 percent used courses developed by commercial or noncommercial vendors.

Internet or World Wide Web courses increasingly account for a larger percentage of these distance education courses. The World Wide Web is now a pervasive and growing technology, increasingly available to more and more Americans. Indeed, the Pew Internet and American Life Project (2001, February 18) has recently concluded that, "73% of those between ages 12 and 17 have Internet access," and that, "The changing online population" is "more and more like the general population." Specifically, these associations reported that, "in the last half of 2000," some 16 million "newcomers" gained Internet access and that "women, minorities, and families with modest incomes continue to surge online."

In an equally important finding, Americans are clearly reporting strong and positive responses to the development of the World Wide Web as a technology and even a source for education. In a November 15, 1999 through December 19, 1999 national survey sponsored by the National Public Radio, Kaiser Family Foundation, and Harvard's Kennedy School of Government (2000, March 3), some 87 percent of Americans reported that they believed the computer had "made life better for Americans and 72% believe the Internet has made life better for Americans." Of those likely to enter college, some 96% of children age 10 to 17, already "use a computer" in their "work" and 85% believe that the "computer" is "essential" for their "work." In this regard, 88% of those 10 to 17 years of age report using the computer and Internet "for education or school work."

Beyond these positive social attitudes, the technology is certainly available for developing web page options for the basic course in communication. Davie (2001, February 7) has reported that:

The average computer purchased in 1995 is a multi-media machine with a fast processor, massive amounts of memory and storage, and the ability to handle both sound and video. These machines can be, and often are, connected to networks of vast breadth and depth. Collectively known as the Internet, these networks allow for the storage and transmission of large quantities of information, including text, sound, graphics, and full motion video. The basic software of the Internet, such as ftp, telnet, email, gopher, and the WWW allow easy access to the most remote outpost on the Internet. While the use of these machines, networks and programs for educational purposes has just begun, the growth is accelerating at a rapid rate.

In a similar manner, Davie (2000, February 7) has reported that the application programs are available to provide most courses through the Internet. After surveying the available computer conferencing programs, graphical capabilities of individual computers, client-server technologies,

local machines with a variety of platforms as well as new developments in software used to access the Internet, she has specifically and pointedly concluded that the major applications programs now exist that “support the organized educational use of computers.”

In this regard, the emergence of web page option communication courses has already been documented, and while more careful surveys need to be completed, web page options for the basic course in communication are also emerging nationwide. Noting that “there is no comprehensive list of the online communication courses being offered,” Cox (2000) has provided only a preliminary survey that indicates that some seventeen universities and colleges—several of them larger universities such as the University of Minnesota, The Pennsylvania State University, and Indiana University-Purdue University—are now offering a variety of communication courses as web-based courses.

In terms of the basic course in communication, systematic survey results are even more difficult to obtain. For example, within a 50 mile radius of our institution, three major universities or college systems have developed web page options for the basic course in communication, but none of these courses are listed in the U. S. Department of Education's National Center for Education Statistics' *Distance Education in Higher Education Institutions*. In mid-February 2001, we did survey CRITNET members and asked them to report if they were teaching a web page option of their department's basic course in communication. Our results suggested that six institutions were offering web page options of their basic course in communication and an additional institution would be offering such a course in the Fall of 2001. Of these seven courses, three were identified by the instructors as “public speaking courses,” three were identified as a “hybrid” introductory course, and one institution reported that it offered both a “public speaking” and a “hybrid” course to satisfy its university basic course in communication requirement. The effectiveness of these courses has yet to be reported, and preliminary reports are thus far predominantly episodic and idiosyncratic (see, e.g., Guernsey, 2001, p. D8).

## **Technological Implementation Is Extremely Expensive**

Perhaps the most significant reason why policy research analyses are undertaken is to determine the cost of implementing computer-mediated instructional systems. In their “Final Report” to the U.S. Department of Education entitled *Distance Education: A Cost Analysis*, Jones and Simonson (2001, February 5) have concluded that, “Technology is expensive and complicated, and some question the propriety of using telecommunications to offer courses to students located at remote sites.” Certainly, different kinds of decisions regarding cost effectiveness must be made at different levels of an educational institution.

In this regard, a series of institution-wide decisions must first be made

regarding the cost effectiveness of web page options for the basic course in communication, especially if this course is part of the institution's general education program. In their report included in the Educational Policy Analysis Archives, political scientists Schmidt, Shelley, Wart, Clayton, and Schreck (2001) identify those factors that affect the size and scope of a distance learning program for an educational institution. These factors include the: (1) capacity of distance learning technologies in terms of number of options, technical capacity of each option, and the cost of each option; (2) market demand for distance courses including competition among traditional universities, competition among for-profit and non-traditional schools, and eagerness of students; (3) faculty-university interest in distance learning including technical support for distance learning, financial support, knowledge of faculty about distance learning, the age of the faculty, and perceptions of the quality of distance learning; and (4) size and scope of distance learning programs including the number of courses using distance learning, the percentage of credit hours generated through distance learning, and the number of faculty using distance learning techniques.

Additionally, beyond the actual cost of the technologies, technological implementation is expensive in terms of the knowledge required to select and maintain a system appropriate to specific educational objectives. Jones and Simonson (2001, February 5) report, for example, that the cost of web page options courses will vary depending on the type of transmission technology used. They compare and contrast the costs of three systems. Fiber optic and microwave systems provide two-way, full motion video and two-way audio systems, but they are also extremely costly to purchase and maintain. A third option, compressed video, also delivers two-way audio and two-way video, but uses a computer device to "compress" the signal, and its use can be restricted.

Within the context of specific technological systems, some specific analyses of the cost of technology in terms of educational benefits have been reported. For example, the State University of West Georgia formally concluded that the "economic benefits" of its distance education "courses were greater than the costs" (Hill, 2001). In this context, it was initially determined that some 87 to 89 percent of students had positively evaluated their distance education course experiences and would continue to use such systems. While it was determined that 35.6 percent of students said they felt intimidated by the various equipment related to the two-way technological systems, the "greatest technological challenge observed was the actual maximization of the technology" (Hill, 2001). Additionally, the "faculty find themselves burdened with the details of transporting materials between sites, scheduling courses, and helping students register," and "some faculty believed that the quality of their instruction suffers because they must spend such a large amount of time preparing mailings, faxing materials to other sites, e-mailing students at remote sites, and assisting remote students with registration and the procurement of books" (Hill, 2001). These assessments were then considered in terms of the "overhead costs for one year of distance

learning," which included the salary and benefits of the "distance learning coordinator, student facilitator wages, telecommunication charges, travel expenses, and supplies." Although costs varied from school to school within the university and while site remoteness also increased the costs, the administrative overhead costs of each course was determined to range from \$3,234 to \$8,764. During certain semesters, low enrollments reduced tuition income for the university which represented a "financial loss for these quarters" (Hill, 2001). But, overall, this University concluded that "the economic benefits of these courses were greater than the costs."

## **Anticipating Positive and Negative Outcome**

A host of positive and negative outcomes can be anticipated whenever a new technology is employed. A virtually unlimited number of such outcomes can be anticipated, such as the effects on home access, school access, use of school facilities, communication and immediacy between faculty and students, diverse effects on different disciplines within universities or colleges, transformations in interdisciplinary and team teaching, changes in the kinds and uses of shared resources, changes in course scheduling as well as changes in faculty initiatives and involvement (for an attempt to balance the various views regarding such issues, see: Warschauer, 2001). In this regard, the reported experiences of institutions such as the Western Governors University and the California Virtual University may also be instructive (see, e.g., Berg, 2001).

For our purposes here, by way of illustration, we think it is appropriate to consider one such issue, the impact of web page technology on the instructors involved in teaching the basic course. Certainly, in a web page learning environment, technology is a central factor affecting how and what faculty can do. The traditional independence of faculty members as well as their liberal conception of academic freedom can account for many of the negative reactions that faculty may have to the new technologies creating the web page basic course. At the same time, while often a neglected dimension in cost analysis, from an instructional perspective, faculty reactions to teaching the web page version of the basic course should be anticipated, both the positive and negative consequences.

In our experience, no matter which of the technological systems is involved, typically the equipment purchase as well as the expertise to operate and maintain these systems will exist external to the department offering a basic course in communication. A series of complicated decisions regarding the selection of the appropriate technology as well as how the system is to be maintained and financed will be made before specific course needs are known or anticipated. In this sense, the basic course in communication is ultimately adapted to the pre-existing technology and available personnel of the university or college offering the course.

Without a sense of participation in the decision-making that determines the technology governing a course, Hodas (2001, February 6)



has concluded that, the “first response” of “long-term” faculty, especially those with a “particular ecosocial niche,” will be “resistance” to technology-dependent course offerings. Additionally, because technology-dependent courses are frequently evaluated in terms of their efficiency and abilities to achieve standardized objectives (also, see, e.g., Hanseth, Monteiro & Hatling, 1996), “questions of teacher self-definition” can frequently be bypassed, for their “anxiety” is “generated by their unfamiliarity and incompetence with the new machines” (Hodas, 2001). In contrast, some faculty who have been familiar with new technologies in the classroom are less likely to encounter machine-related anxiety when approaching a web page version of the basic course. Accordingly, as cost analyses are conducted of web page distance education courses, the role and function of instructors should also be addressed. Depending upon the background and technological experience of the instructor, machine-related anxiety can vary tremendously. In this regard, given the wide range of experiences of faculty members, specific policies regarding faculty are appropriate in any comprehensive cost assessment of the web page option for the basic course in communication.

Thus, in anticipating positive and negative outcomes, there is no easy answer. A wide range of outcomes can be expected. Rather than “experimenting” with each of these possible outcomes, which may itself be an impossible task, a policy research analysis needs to be conducted that anticipates as many of these outcomes as possible. Rather than “start over” because the modes of instruction change, existing research regarding pedagogical modalities should be consulted and examined for the ways in which they inform new combinations in faculty-student interactions.

## **Sharing Policy Research Analysis Findings**

A basic premise of policy research analysis is that the results of such analyses should be with all of those agents involved in creating the web page learning environment. The power of a policy research analysis stems from the fact that it seeks to integrate a wide range of findings from a host of different disciplines as well as different kinds of information agencies. The synthesis itself, as Boyer (1990) reminds us, is itself a new form of knowledge, generating the kinds of understandings that only integration and links or bridges among disciplines and information agencies can provide. In this regard, common sense can only be achieved when technical and specialized terminologies are minimized and broader patterns of relationships are emphasized. In other words, a policy research analysis is effective only if it emphasizes the “big picture.” The “big picture” is understood, operationally, when all of the agents involved in producing a web page version of the basic course understand the basic elements of the system used and how those elements are related. In this regard, both students and faculty members must be able to use the system regardless of its technological sophistication. Equally important, technicians and instructional designers must understand the course objectives and content if they are to provide the appropriate frames for each lecture, exercise, example, and assignment. In this regard, from start to finish, the results of a

policy research analysis must be shared by the *team* involved in producing the web page version of the basic course in communication.

## Promoting Cooperative Endeavors Among Competing Institutions

Departments of communication have traditionally cooperated in a host of ways when constructing and teaching the basic course in communication. Such cooperation was possible, in part, because departments do not directly compete against each other for student enrollments. For example, the distance among institutions, by and large, guarantees that students cannot select the best course from the offerings of several different institutions.

However, the web page version of the basic course can create an alternative, and far more competitive, framework for departments. Web pages dissolve geography. Students can generally take a web page course at any institution and simply transfer the credit from that institution to their home institution thereby fulfilling requirements at their home institutions. While institutions may restrict the total number of hours that can be transferred, the restriction still allows them to “shop” for the best deal on an entire set of courses. With the World Wide Web, from the convenience of their dorm rooms, students can “shop” from among all available basic communication course web options. For these students, a host of standards can be used for selecting such courses, such as selecting the easiest course, the cheapest course, the course that can be completed in the fastest period of time, and so forth. For some students, for a tremendous variety of reasons, a public speaking vs. hybrid emphasis could make all of the difference to them in terms of their course selection. And, certainly, the Internet gives students new choices that can enhance and improve the quality of education they may be seeking.

At the same time, the existence of such web page options for students also provides departments of communication an opportunity to decide how they will respond to diverse student needs. Some may elect to compete with other departments, and such competition may be healthy. Others may elect, however, to confer with their colleagues across departmental lines and to assess the range of options that students would encounter if they crossed institutional lines. It is certainly difficult to anticipate the questions and issues on which departments may elect to cooperate. However, a policy research analysis allows departments to consider a host of areas where such cooperation may be possible and desirable and where such cooperation can enhance educational objectives when developing and teaching the basic course. In the next section of this paper we outline an entire series of areas where we think such cooperation can only enhance the basic communication course provided by every institution. Because of the significance we attribute to it, we begin this policy option section by focusing on cooperation among departments of communication.



## Policy Directions

Our analysis has suggested that several policy considerations should initially be under review. These policies gather around issues of cooperation, quality, future research, future policy development and leadership and oversight. Although specific issues relevant to these policies frequently overlap, these categories provide a framework for several important policy initiatives.

### Cooperation

***Policy # 1: Departments who offer online basic courses should develop a framework to encourage and implement cooperation.***

As we have already noted, the digital delivery of education creates competition for tuition dollars among institutions of higher education, as well as between institutions of higher education and private organizations as evidenced by a recent book title, *Dancing with the Devil: Information Technology and the New Competition in Higher Education*. Regardless of whether we agree with Coulson (1996), who argues that competition in the educational marketplace would lead to enhanced quality and efficiency, we must, nevertheless, face the reality of such competition and the potential consequences for institutional survival as well as the ultimate well-being of our discipline. An attitude of cooperation among communication departments presently offering online basic courses, joined to pragmatic mechanisms for implementing this cooperation, remain important objectives for all concerned. For example, with such cooperation, departments could develop links among their web pages in order to incorporate the best features of individual courses from a variety of institutions thereby reducing duplication while enhancing quality. While future policy decisions regarding how this may be best accomplished will need to be developed, this initial policy directive is important if online basic courses are to provide quality, affordable distance education.

***Policy # 2: Departments who offer online basic courses should share approaches for handling presentations required by the basic course.***

Most classroom-based, basic courses incorporate required performances (Morreale, Hanna, Berko, & Gibson, 1999). However, moving this requirement to digitally delivered courses remains problematic. In most instances, at present, the burden for meeting presentation requirements rests upon the student. For example, typically, students must identify their audiences for speeches, videotape the speech and send the tape to the instructor for feedback. This approach is economical from the teacher's and institution's perspective in that it saves time for the teacher and reduces the technological expenses that would be incurred with more sophisticated interactive technology. Another approach, however, would be to shift the burden for performance to technology by using two-way interactive

technology. These and other innovative ideas for addressing performance requirements, however, need to be shared among departments offering online basic courses in order to ensure course quality.

## Quality

Without doubt, quality varies between online basic courses due to a variety of factors including available technology and the instructional design capabilities of instructors who “put up” the courses. Our own investigation of basic courses presently offered online confirms that differences in quality dimensions are readily apparent. Quality issues must be addressed for the sake of students, faculty and institutions. For example, many faculty resist online education because they are convinced that instructional quality is most assuredly lost in the digital environment (Schmidt et al., 2000). The following policies address, to a degree, quality concerns.

***Policy # 3: Departments should develop standards for and assess the quality of online basic courses.***

While quality issues for online courses continue to emerge, a number of organizations, journals, list serves, and scholars continue to offer insight regarding these concerns. A variety of websites provide numerous such resources. For example, the American Center for the Study of Distance Education at Pennsylvania State University, (<http://www.ed.psu.edu/acsde/>), Distance Educator. Com ([http://www.distanceeducator.com/portals/policy\\_resources.html](http://www.distanceeducator.com/portals/policy_resources.html)), and the World Wide Web Virtual Library <http://www.cisnet.com/~cattales/Deducation.html> all provide information. Monographs, journal articles and convention programs also offer resources that help many of the quality issues attending distance education. Moreover, many institutions offer specialists to assist instructors in developing and assessing quality online instruction. Therefore, departments and course developers should avail themselves of these specialists in order to ensure that courses are developed and reviewed with the assistance of instructional design experts. While the learning curve appears quite steep, departments who choose to develop online courses must develop quality control standards and identify ways to assess quality based on the standards that are developed. Perspectives such as total quality management may assist in developing these broad-range guidelines (McIlroy & Walker, 1993). While this policy is rather broad, more specific policies, as enunciated in policies four through six below, should help specify this directive.

***Policy # 4: All faculty who teach the online basic course should receive appropriate training relevant to and rewarded for engaging web-based education.***

Faculty development remains critical in ensuring the quality of online basic courses. However, data suggests that faculty are not attracted by or involved in developing their abilities to teach online courses. For example, the U. S. Department of Education’s Survey on Distance Education Offered

by Higher Education Institutions (1995) reports that while a variety of faculty training opportunities were generally available they were "not required of faculty teaching distance education courses at about 60 percent of the institutions. About a quarter of the institutions required faculty to have training in the use and application of distance education technologies, and to consult with support center staff; about 13 percent required training in curriculum development, and about 17 percent training in teaching methods for distance education courses."

Moreover, Schmidt et al., (2000) in a study of distance education and political science departments report that faculty consider distance learning largely a fad, question the quality of distance education, lack the knowledge to employ distance education technology, and possess limited interest in developing knowledge of distance education. Likewise, the University of Maryland, in a recent white paper, noted that faculty reward systems do not adequately recognize work in distance education initiatives. Likewise, Cox (2000) reports that compensation for communication faculty who teach courses online varies. In some instances, if professors own intellectual property rights for the online courses they teach, they do not receive any compensation. In other cases, instructors receive from \$500.00 to \$3,000 for teaching a course, release time, or both. Given that Cox (2000) notes that teaching online "is a black hole of time and energy" (p. 11), compensation is an issue of considerable import for faculty.

We contend that the perceptions and practices we have noted above must change if we are to ensure quality web-based basic courses. Faculty must be equipped with the necessary technical and pedagogical skills to teach online. Additionally, departments and institutions of higher education must restructure reward systems so that faculty are motivated to undertake the challenging task of learning to teach online. As the White Paper from the Chancellor's Symposium on Policy and Distance Education from the University of Maryland (Feb. 5, 2001) recently recommended, faculty need to "reexamine their teaching methodologies in light of new technologies of distance education" and "redefine their roles in measuring productivity to include the design and delivery of technology-enabled and performance learning."

Faculty concerns about intellectual property rights must also be addressed. Although, as Distance Educator. Com reports (Feb. 5, 2001), in the Digital Millennium Copyright Act of 1998, the Congress directed the U. S. Copyright Office to investigate and report on the copyright issues attending the digital environment, this is an area that continues to receive attention and generate debate. For example, in some institutions, if faculty incorporate their own materials into a university-sponsored website, the university claims ownership of the materials. Cox (2000) notes that in his survey of communication departments teaching online courses, only 20% of faculty teaching online communication courses hold intellectual property rights while 33% of the institutions hold the rights. Interestingly, 47% reported that they did not know who held the rights. Universities must address issues of intellectual property rights equitably if faculty are to respond favorably to

distance education initiatives. In response to this concern, the White Paper from the Chancellor's Symposium on Policy and Distance Education from the University of Maryland (Feb. 5, 2001) recently proposed that "Institutions and the System will assure that policies on intellectual property balance faculty, staff, and institutional rights in development of distance education courseware."

**Policy # 5: Departments should develop a variety of feedback channels for online basic courses.**

In order to continually monitor quality control data, departments should identify valid and reliable means of assessing online basic courses that incorporate the perspectives of all the stakeholders. Certainly, student perspectives are a primary data source. Additionally, departments should invite critiques from content and pedagogical specialists and, where possible, provide consulting fees for these specialists. Moreover, when a particular textbook is adopted for an online basic course, the authors of that textbook should be invited to review and respond to the website. Not only will this provide the developers and instructors of the course with valuable insight, it is also likely to provide insights that will assist authors as they undertake revisions of texts. Departments may also wish to enroll "phantom students" who take the course solely for the purpose of identifying strengths and weaknesses. For example, a faculty member from another discipline or an adjunct who teaches the basic course in the classroom may enroll in the online basic course in order to provide feedback to the instructor and the department. While a variety of assessment methods may be employed, it is essential that departments gather systematic and ongoing feedback in order to improve online courses.

**Policy # 6: Textbook publishers should develop basic course textbooks that integrate technology and provide resources for online instruction.**

For example, the latest edition of the most widely used public speaking text, *The Art of Public Speaking* by S. E. Lucas (Morreale, et al., 1999), is distributed with a CD that includes examples of student speeches. Other textbooks provide links to web-based resources, such as Pearson and Nelson's *An Introduction to Human Communication: Understanding and Sharing*. Publishers should provide a website for texts that assists instructors in using materials in a web-based delivery system. Additionally, publishers need to develop web pages to which online basic courses can easily link that offer appropriate activities, exercises and other materials to enhance web-based course content.

However, perhaps even more important, as was recently highlighted by a sponsoring editor for a major publishing company, the various technological supports for basic course texts need to be integrated (A. Forrand, personal communication, Feb. 9, 2001). There are many resources available, in fact, perhaps there are too many to be used effectively. With integration, however, the resources would be more useful, in general, and more useful

for web-based courses in particular. The use of e-books or other integrative technologies may provide ways to integrate basic course materials and thereby provide valuable, but quality, shortcuts for web-based courses.

## Future Research

While a considerable amount of research continues regarding distance education, focused research on a number of important issues must be forthcoming if we are to effectively engage online instruction. While some of the issues for future research are specifically related to the basic course, others have a broader application.

### **Policy # 7: Future research should provide basic descriptive data and compare web-based and in-class instruction of the basic course.**

At present, extant research does not adequately address the questions that attend teaching communication courses, and especially the basic course, online. While some researchers have collected initial descriptive data about online communication courses (see Cox, 2000), complete descriptive data is not available. Therefore, survey research that gathers important descriptive data should be conducted more extensively. Moreover, research that focuses on basic course content and pedagogy is inadequate. We advise that researchers undertake systematic research comparing in-class and online instruction for the basic course by centering on the three typical domains of learning and the common topics taught in the basic course (see Morreale et al., 1999). Table 1 below summarizes this research agenda.

**Table 1**

### **Suggested Research Agenda Comparing Online and In-class Basic Course Instruction**

Topics	Cognitive Domain	Affective Domain	Behavioral Domain
Informative	CMC	CMC	CMC
Speaking	In-class	In-class	In-class
Persuasive	CMC	CMC	CMC
Speaking	In-class	In-class	In-class
Audience	CMC	CMC	CMC
Analysis	In-class	In-class	In-class

Delivery	CMC	CMC	CMC
	In-class	In-class	In-class
Outlining	CMC	CMC	CMC
	In-class	In-class	In-class
Listening	CMC	CMC	CMC
	In-class	In-class	In-class
Supporting	CMC	CMC	CMC
	In-class	In-class	In-class
Material	CMC	CMC	CMC
	In-class	In-class	In-class
Speech	CMC	CMC	CMC
	In-class	In-class	In-class
Anxiety	CMC	CMC	CMC
	In-class	In-class	In-class
Reasoning	CMC	CMC	CMC
	In-class	In-class	In-class
Nonverbal	CMC	CMC	CMC
	In-class	In-class	In-class
Communication	CMC	CMC	CMC
	In-class	In-class	In-class
Interpersonal	CMC	CMC	CMC
	In-class	In-class	In-class
Communication	CMC	CMC	CMC
	In-class	In-class	In-class
Theory	CMC	CMC	CMC
	In-class	In-class	In-class
Critical	CMC	CMC	CMC
	In-class	In-class	In-class
Thinking	CMC	CMC	CMC
	In-class	In-class	In-class
Language	CMC	CMC	CMC
	In-class	In-class	In-class

**Policy # 8: As one of its first issues, research should be undertaken to determine the nature of the audience in web-based instruction.**

Although audience analysis is ranked as the third most frequently addressed topic in basic courses (Morreale, et al., 1999), it is of such import that we believe it should receive primary research attention given that the nature of audience presents a particularly problematic issue for web-based basic course instruction, especially when performance expectations are included in the course, as is typical. Important questions include: Who constitutes an audience given the mediated channel? Is the audience invisible? Is the audience a “fixed” or presumably a “fixed” audience? Should technology that permits an audience that is physically removed to



see the speaker and the speaker to see the audience be required?  
How should instructors create an audience for web-based courses?

**Policy # 9: Research focusing on quality online instruction should continue in order to ensure that basic course instruction continues to improve.**

While we have already addressed several quality control issues in prior policy statements, it is important to emphasize that given the rapid development of technologies and their potential use in distance education, research that helps understand issues of quality control must continue. In turn, this understanding will provide an important foundation for monitoring and improving quality online instruction. In particular, as Schmidt et al. (2000) note, when discussing online political science instruction, faculty need robust models of excellent online basic course instruction in order to visualize excellence and in order to maintain a standard for excellence. We specifically call upon those who possess discipline-specific content knowledge, technical savvy and online pedagogical skill in teaching the basic course, to respond to this call for quality control research and share their insights with the community of scholars in our discipline.

**Policy # 10: Future research should discover ways to address questions of equity and compensation for institutions and faculty dedicated to distance education.**

To assert that departments and faculty should share the work in which they have invested considerable time and energy, as we have done here, assumes an altruism that may well exceed the constraints of financial and institutional self-interest. Therefore, further research that addresses how institutions and individuals may share their work and also receive proper recognition and compensation must be conducted. Rather than create additional competition, researchers and policy analysts must find ways to build bridges that link communication professionals and departments together in common enterprises. In this way, the technological “have-nots” can find ways to meet the needs of the populations they serve and develop symbiotic relationships with those institutions that have the necessary resources to provide quality distance education while ensuring that the “haves” are not disadvantaged as a consequence of this symbiosis.

**Policy # 11: Future policy analysis of distance education should continue.**

Policy analysis is, by nature, an iterative process (see Patton, 2001). As new technologies emerge, as more information becomes available and as fresh insights develop, additional policy development for distance education will be essential. Moreover, the policies we have enumerated here will also need to be revised or, in some cases, replaced. Therefore, policy analysis researchers must continue to examine the trends and developments in distance education. More specifically, communication researchers must continue to develop policies relevant to teaching the basic course, and other



communication courses, online. For example, as comparative research, such as we have suggested in Table 1, yields insights regarding CMC and face-to-face instruction, web-based courses must be adjusted in accord with the pragmatic implications derived from such research. In turn, this will also address issues of quality control by providing directives for teachers, authors and publishers.

**Policy # 12: The National Communication Association should provide strategic leadership for and oversight of online delivery of the basic course.**

The policies suggested here require leadership and oversight. Cooperation for, enhanced quality in, future research and future policy development regarding distance education will not occur without coordination and encouragement. The National Communication Association (NCA) should be responsible for providing this leadership and oversight. While NCA's role in this endeavor has begun, as evidenced by one of the strands of interest slated for the 2000 NCA Summer Conference, the organization must continue to be responsive to distance education initiatives. In particular, we advise that NCA provide some specific responses in order to provide the needed leadership and oversight.

First, NCA should act as a clearinghouse and resource for departments engaged in delivering the basic course online. Given the first two policies that call for cooperation among departments teaching the basic course online, we recommend that the National Communication Association become active in forging such cooperation. In particular, the NCA Educational Policy Board needs to focus on developing a cooperative framework among departments offering online basic courses to share insights, resources, protocols and strategies. As a first step, NCA should call a summer conference addressing this framework as a way to begin this important collegial conversation. The results of these conversations should then be made available to institutions and instructors .

Second, NCA should facilitate the research that attends quality concerns outlined in policies three through six and as specifically suggested in policies seven through ten. NCA can facilitate these endeavors by identifying researchers committed to this line of *textbooks continue Basic course to proliferate in the market. Increasingly, many of them provide various digitally-based support.* inquiry, finding external funding to underwrite the required research, and employing present outlets, while also developing other public forums, for the resulting research to be published. *The Basic Communication Course Annual, Communication Education, Applied Communication Research, and The Communication Teacher*, for example, provide outlets to share the research regarding distance education and the basic course. Additionally, just as NCA has developed publications to address other important issues, such as curricular standards and assessment strategies, the organization can also develop materials that summarize significant research and help keep institutions and instructors abreast of important insights and practices relevant to distance education.

NCA may also consider dedicating future summer conferences to the specific research concerns that attend distance education and the basic course that we previously outlined.

## Conclusion

Web page versions of the basic course in communication constitute a new opportunity for innovation in how learning and learning environments are created only if there is sufficient planning for how learning and learning environments are to be constructed. The cost of the technology, the pool of expertise required, the hours of course design and planning as well as the challenges posed by merely working within a new teaching-learning environment require that the questions and issues be anticipated as much as they can be. We have suggested in this analysis that policy research analysis be employed to achieve such ends. Such analysis provides a set of five criteria that can be used to examine the scope and range of issues involved. While we have only provided a preliminary analysis of these issues, the analysis has been heuristic, and it has suggested a set of potential policies that could encourage the discipline of communication, and specifically its professional organizations, to consider so that the transformation to new teaching and learning environments is as cooperative and shared an experience as possible.

## References

Association for Managing and Using Information Resources in Higher Education. (2001, February 9). System-wide higher education policy resources. [http://www.distance-educator.com/portals/policy\\_resources.html](http://www.distance-educator.com/portals/policy_resources.html).

*Basic communication course annual*. (1991). Boston, MA: American Press.

Berg, G. (2001, February 6). Public policy on distance learning in higher education: California State and Western Governors Association initiatives. <http://epaa.asu.edu/epas/v6n11.html>

Berg, M. (1998, Autumn). The politics of technology: On bridging social theory into technological design. *Science, Technology, & Human Values*, 23, 456-490.

Biagi, S. (2001). *Media/impact: An introduction to mass media* (5<sup>th</sup> ed.). Belmont, CA: Wadsworth/Thomas Learning.

Boyer, E. L. (1990). *Scholarship reconsidered: Priorities of the professoriate*. San Francisco, CA: Jossey-Bass.

Chen, G. (2000). Global communication via Internet: An educational application (pp. 143-157). In G. Chen & W. J. Starosta (Eds.), *Communication and global society*. New York: Peter Lang.

Chesebro, J. W. (2000, Winter). Communication technologies as symbolic form: Cognitive transformations generated by the Internet. *Qualitative Research Reports in Communication*, 1, 8-13.

Chesebro, J. W., & Worley, D. W. (2000). The discipline of communication in higher education: Mutually defining and reciprocal relationships. *Journal of the Association for Communication Administration*, 29, 26-39.

Christensen, C., Craig, T., & Hart, S. (2000, March/April). The great disruption. *Foreign Affairs*, 80, 80-95.

Cohen, H. (1994). *The history of speech communication: The emergence of a discipline, 1914-1945*. Annandale, VA: Speech Communication Association.

Coulson, A. (2001, Feb. 5). Market versus monopolies in distance education: The historical evidence. <http://epaa.asu.edu/epaa/v4n9.html>

Cox, S. A. (2000, November 9-12). *Online communication courses: Courses being offered and practices of faculty who use new technologies in instruction*. Paper presented at the annual meeting of the National

Communication Association, Seattle, WA.

Davie, L. E. (2001, February 7). Times of turbulence and transition in distance education: Needed research in computer-mediated communication (CMC) course design.

<http://www.oise.utoronto.ca/~ldavie/NeededResearch.html>

Dizard, Jr., W. (2000). *Old media, new media: Mass communications in the information age* (3<sup>rd</sup> ed.). Longman/Addison Wesley Longman, Inc.

Gattiker, U. E. (2001). *The Internet as a diverse community: Cultural, organizational, and political issues*. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Grin, J., & van de Graaf, H. (1996, Winter). Technology assessment as learning. *Science, Technology, & Human Values*, 21, 72-99.

Guernsey, L. (2001, February 15). Web courses in the classroom. *New York Times*, p. D8.

Hanseth, O., Monteiro, E., & Hatling, M. (1996, Fall). Developing information infrastructure: The tension between standardization and flexibility. *Science, Technology, & Human Values*, 21, 407-426.

Hodas, S. (2001, February 6). Technology refusal and the organizational culture of schools. <http://epas.asu.edu/epas/v1n10.html>

Hugenberg, L. (Ed.). (1991). Editor's page. *Basic communication course annual* (vol. III, pp. iv-v). Boston, MA: American Press.

Jones, J. L., & Simonson, M. (2001, February 5). *Distance education: A cost analysis*. [http://www.iptv.org/FINELINK/resources/full\\_text/13-full1.htm](http://www.iptv.org/FINELINK/resources/full_text/13-full1.htm)

Katz, R. (1999). *Dancing with the devil: Information technology and the new competition in higher education*. San Francisco: Jossey-Bass.

Lucas, S. E. (2000). *The art of public speaking* (7<sup>th</sup> ed.). NY: Random House.

Mackie-Mason, J. K., & Waterman, D. (Eds.). (1998). *Telephony, the Internet, and the media: Selected papers from the 1997 Telecommunications Policy Research Conference*. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Martino, J. P. (1972). *Technological forecasting for decisionmaking*. New York: American Elsevier Publishing Company, Inc.

McIlroy, A. & Walker, R. (2001, Feb. 5). Total quality management: Some implications for the management of distance education.

<http://www.ed.psu.edu/acsdde/>

Moore, S. (2000). *Media and everyday life in modern society*. Edinburgh, England: Edinburgh University Press.

Morreale, S. P., Hanna, M. S., Berko, R. M. & Gibson, J. W. (1999). The basic communication course at U. S. colleges and universities: VI. *Basic Communication Course Annual*, 11, 1-36.

National Public Radio, Kaiser Family Foundation, & Harvard's Kennedy School of Government. (2000, March 3).

<http://www.npr.org/programs/specials/poll/technology.kids.html>

Owen, B. M. (1998). A novel conference: The origins of TPRC (pp. 1-11). In J. K. MacKie-Mason & D. Waterman (Eds.), *Telephony, the Internet, and*

*the media: Selected papers from the 1997 Telecommunications Policy Research Conference*. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Patton, C. V. (2001, February 5). Steps for a successful policy analysis. <http://www.tele.sunyit.edu/policy.htm>

Pearson, J. C. & Nelson, P. E. (2000). *An introduction to human communication: Understanding and sharing* (8<sup>th</sup> ed.). Boston, MA: McGraw-Hill.

Pew Internet and American Life Project. (2001, February 18). More online, doing more. <http://www.pewinternet.org>

Schmidt, S., Shelley, M. C., Wart, M. V., Clayton, J., & Schreck, E. (2001, February 6). The challenges to distance education in an academic social science discipline: The case of political science. <http://epaa.asu.edu/epaa/vl8n27/html>

Sconce, J. (2000). *Haunted media: Electronic presence from telegraphy to television*. Durham, NC: Duke University Press.

Trank, D. M., & Lewis, P. (1991). The introductory communication course: Results of a national survey. In L. Hugenberg (Ed.), *Basic communication course annual* (Vol. III, pp. 106-122). Boston, MA: American Press.

U. S. Department of Education. (2001, February 4). *Distance education in higher education institutions*. <http://nces.ed.gov/pubs98/distance/chap8.html>

University of Maryland (2001, Feb. 5). White Paper from the Chancellor's Symposium on Policy and Distance. <http://www.umuc.edu/ide/whitepap.html>

Virnoche, M. E. (1998, Spring). The seamless web and communications equity: The shaping of a community network. *Science, Technology, & Human Values*, 23, 199-220.

Warschauer, M. (2001, February 6). Technology and school reform: A view from both sides of the tracks. <http://epaa.asu.edu/epaa/v8n4.html>

Zimmerman, A. D. (1995, Winter). Toward a more democratic ethic of technological governance. *Science, Technology, & Human Values*, 20, 86-107.

*David W. Worley and James W. Chesebro are Assistant Professor and Professor respectively in the Department of Communication at Indiana State University, Terre Haute, IN 47809.*

This portion of [www.natcom.org](http://www.natcom.org) is managed by [Sherry Morreale](#) and updated by [J Peltak](#). If you have suggestions or additions, please contact them directly.





*U.S. Department of Education  
Office of Educational Research and Improvement (OERI)  
National Library of Education (NLE)  
Educational Resources Information Center (ERIC)*



## **NOTICE**

### **Reproduction Basis**

**X**

This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.



This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").